5.56 mm **AR 110C**
SEMI AUTO RIFLE

OPERATOR'S MANUAL

DAEWOO

5.56 mm AR110C
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ORGANIZATIONAL MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND
BASIC ISSUE ITEMS LIST

DAEWOO

FOREWORD

This manual is made for the information and guidance of personnel whose duties involve the use and maintenance of the 5.56mm AR110C and furthermore to enable him to use it with maximum efficiency.

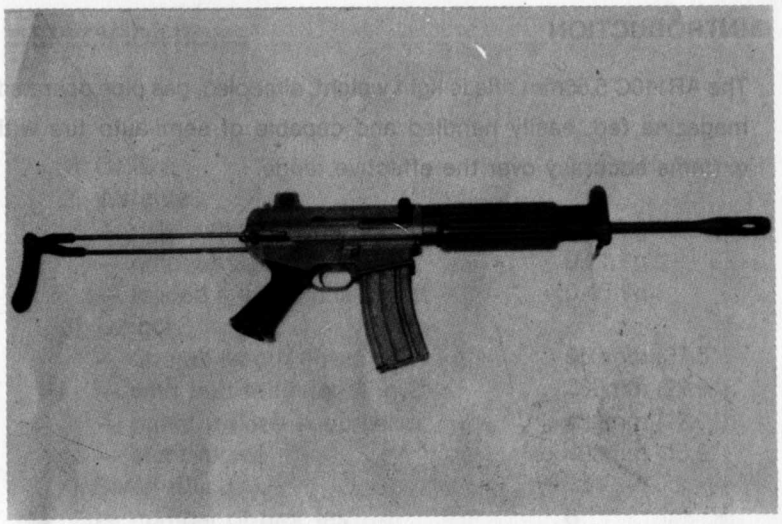


Fig. 1 AR110C RIFLE (Butt Extended)

Fig. 2 AR110C RIFLE (Butt Retracted)

■INTRODUCTION

The AR110C 5.56mm rifle is light weight, aircooled, gas pipe operated, magazine fed, easily handled and capable of semi-auto fire with extreme accuracy over the effective range.

■SPECIFICATIONS

A. Rifle

1) Calibre	5.56 × 45 mm
2) Weights	
— rifle without magazine and sling	2.95 kg
— empty magazine (30 rds)	0.11 kg
— loaded magazine (30 rds)	0.45 kg
3) Length	
— Overall length (Fig 1)	953mm (37.5″)
— with butt retracted (Fig 2)	760mm (29.9″)
— barrel welded suppressor	432mm (17.0″)
— sight radius	403mm (15.9″)
4) Barrel rifling	
— number of grooves	6
— twist of rifling	right hand
— pitch of rifling	185mm (7.3″)
5) Rate of fire	
— semi-automatic	45—65 rds/min
6) Effective range	250m
7) Maximum range	2453m
8) Muzzle velocity	820m/sec

B. Ammunition

1) Calibre	5.56 × 45mm
2) Type	.223 REM

■CHARACTERISTICS

- Sliding wire stock
- The forged aluminium alloy Receiver is solid, durable and guarantees longer lifetime.
- Bolt, bolt carrier, firing pin, and recoil spring in one assembly easy to strip without any tool.
- Rotating bolt locking system.
- Gas operated system with gas pipe.
- Selector lever with 2 positions (Fig. 3)
  SAFE : safety
  SEMI : single shot

- Tilting rear sight with two selective apertures
  — the 7mm aperture for limited visibility,
  — the 2mm aperture for zeroing and day firing.
- The sights are adjustable without any special tool.
  — Rearsight in windage
  — Front sight in elevation
- Ejection to the right forward.
- Charging handle bounds up with the mechanism of the rifle and reciprocates with it.
- Interchangeability with M16A1 magazine 20 or 30 rounds.
- Cleaning kit contained within the pistol grip.
- Possibility to attach a bayonet.

Fig. 3

■HANDLING

A. Stock assembly

- The length of the rifle can be adjusted by a sliding wire stock.
- There are three indentations in which the stock latch can engage, giving the fully retracted position and an intermediate location as well as the fully extended stock required for firing from the shoulder.
- To extend the stock halfway, hold the rifle in the left hand and pull the stock with the right hand (Fig. 4)
- To extend the stock fully from halfway position, hold the rifle in the left hand while depressing the stock latch button and extend the stock with the right hand. (Fig. 5)
- To remove the stock, depress the stock latch button, keep the pressure on button and pull the stock completely out. (Fig. 6)

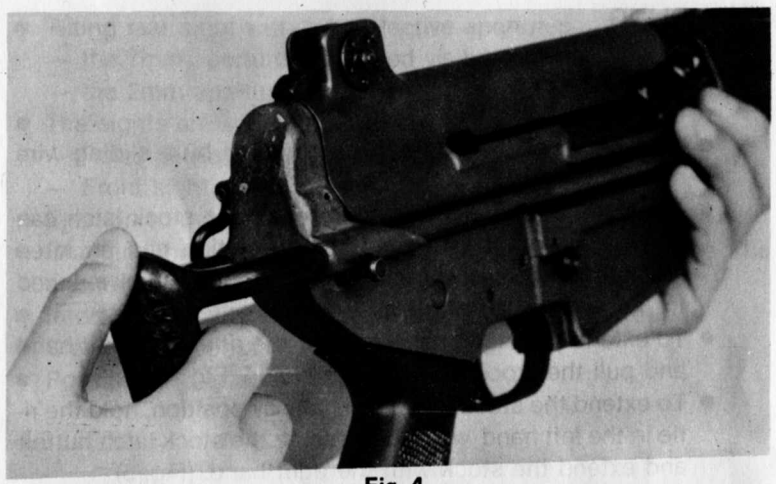


Fig. 4

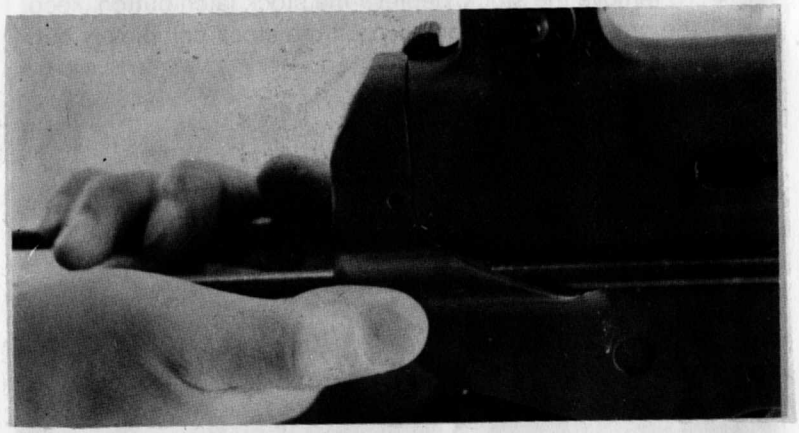


Fig. 5

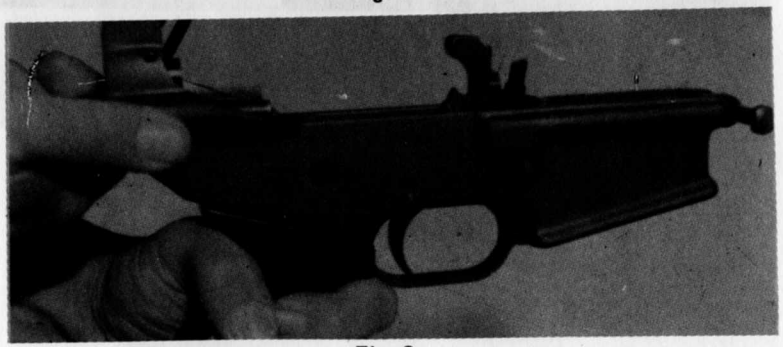


Fig. 6

B. Loading

1) Loading the magazine

a) With magazine charger
- — Connect magazine charger over the mouth of the magazine, with the guides for the charger strip on the side of the magazine rib.
- — Insert magazine charger strip into magazine charger.
- — Push down on top cartridge, forcing cartridges into magazine.

b) Without magazine charger
- — Insert cartridges one by one into the magazine, with the base of round to the rib of the magazine.

2) Loading the rifle

Prior to loading the rifle, place selector lever on SAFE: selector lever cannot be placed on SAFE unless rifle is cocked. The magazine may be inserted with the bolt and bolt carrier opened or closed. Grasp the pistol grip, point the muzzle in a safe position and insert loaded magazine into magazine housing. Push upward until the magazine catch engages and holds the magazine. If the bolt carrier is locked to the rear, push in the upper portion of bolt catch (Fig. 7) allowing the action to close, chambering a round. If the bolt carrier is in the forward position when the magazine is inserted, pull the charging handle fully to rear and release it.
The gun is now loaded and can be fired when the selector lever is placed in the SEMI position.

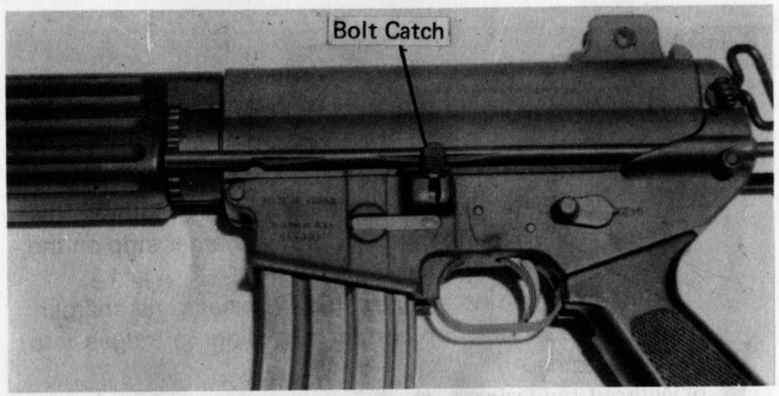


Fig. 7

C. Use of selector lever

You can rotate the select lever clockwise and counter-clockwise in 180 degrees only in the direction of arrow.

1) 'SAFE'

To change from semi-position to safe position, you must rotate the select lever counterclockwise.
The gun will not fire in safe position. Selector lever cannot be on safe unless gun is cocked. Always place in SAFE, when loading an unloading.

2) 'SEMI' (Fig. 8)

To change from safe-position to semi-position, you must rotate the select lever clockwise.
The gun will fire one round each time the trigger is pulled.

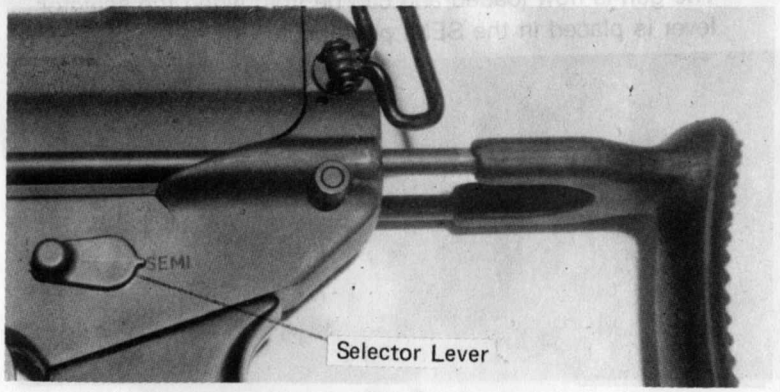


Fig. 8

D. Unloading

1) Place the selector lever on 'SAFE'
2) Remove the magazine by pressing the magazine release button. (Fig. 9)
3) Pull the charging handle fully back to extract and eject the cartridge in the chamber.
4) Release the charging handle.

Fig. 9

E. Sight adjustment

1) Rear sight

To adjust the windage, depress detent and rotate the drum to desired direction. To move the point of impact to the right, turn the drum clockwise in direction of arrow and letter 'R'. To move left, move drum counterclockwise (Fig. 10). Each graduation (notch) moves the point of impact of bullet as shown in the table below.

2) Front sight

To adjust elevation, depress detent and rotate the post. To raise the strike of bullet, rotate the post to the direction of arrow mark. Reverse the direction of rotation to lower the strike of bullet. (Fig. 11)
Each graduation (notch) moves the point of impact of bullet as indicated in chart.

RANGE	IMPACT
25 meters	0.875cm
100 meters	3.5cm
200 meters	7.0cm

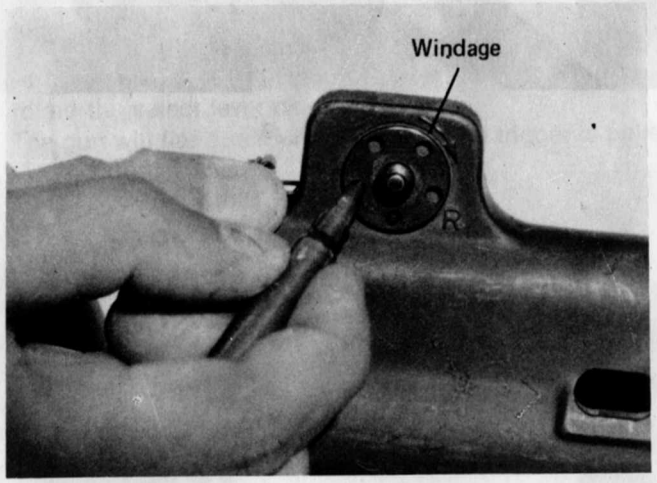


Fig. 10

Fig. 11

F. Sight zeroing

In order to sight zeroing, adjust your sights so you can hit an aiming point at 250 meters.
Zeroing can also be accomplished on 25 meter range by adjusting the sights so that the bullet will strike 0.7 centimeters below the point of aim.

G. Immediate action

Immediate action is the action taken to correct the stoppage without analyzing the cause. Immediate action to clear a stoppage in the rifle is as follows.

1) Push the charging handle forward to insure that the extractor had engaged the round. Tap upward on the bottom of the magazine to ensure that it is fully seated. Pull charging handle fully to the rear. Watch for ejection of a complete cartridge or a cartridge case.
2) Pull charging handle fully to the rear. Watch for ejection of a complete cartridge or if a cartrdge of case is ejected, release charging handle fully forward to assure bolt closure. Attempt to fire the rifle. If rifle fails to fire, inspect to determine cause of malfunction and take appropriate action (see TROUBLE SHOOTING)

3) If a cartridge or a case won't be ejected, check for a round in the chamber. If chamber is clean, release charging handle to feed a round, push the charging handle forward, and attempt to fire. If rifle still fails to fire, inspect to determine cause of malfunction and take appropriate action (see TROUBLE SHOOTING)

4) If a cartridge or case is noted in chamber it must be removed before attempting to reload or recycle the rifle. A stuck cartridge or case can be removed by inserting the cleaning rod into the bore from the muzzle end and tapping the cartridge.

■TROUBLE SHOOTING

Trouble shootings are usually the result of worn parts or improper care of the rifle. A knowledge of how the rifle functions enables the user to classify and correct the trouble shooting.

PROBLEM	CHECK FOR	HOW TO FIX IT
WON'T FIRE	Selector lever on SAFE	Put it on SEMI
	Improper assembly of firing pin	Assemble correctly (RETAINING PIN GOES IN BACK OF LARGE SHOULDER OF FIRING PIN)
	Broken firing pin	Replace
	Too much oil in firing pin recess	Wipe off
	Defective ammo	Remove and discard
	Too much carbon on firing pin	Clean
BOLT WON'T UNLOCK	Dirty or burred bolt	See your NCO or your unit ARMORER
WON'T EXTRACT	Broken extractor spring	See your ARMORER
	Dirty or corroded ammo.	Clean or Remove (Push out stuck round with cleaning rod.)
	Carbon in chamber	Clean chamber
	Fouling or carbon in extractor recess or lip	Clean
	Dirty magazine	Clean
	Defective magazine	Replace
	Too many rounds in magazine	Take out excess

PROBLEM	CHECK FOR	HOW TO FIX IT
WON'T FEED	Restricted recoil spring assembly action	Take out the recoil spring assembly and clean.
	Magazine not fully seated	Turn in to unit ARMORER
DOUBLE FEED	Defective magazine	Replace
WON'T CHAMBER	Dirty or corroded ammo	Clean
	Damaged ammo	Replace
	Carbon in chamber	Clean
WON'T LOCK	Dirt, corrosion, or carbon build up in barrel locking lugs	Clean lugs
	Frozen extractor	Remove and clean
	Restricted recoil assembly	Remove and clean
	Restricted movement of bolt carrier group	Remove, clean and lubricate
SHORT RECOIL	Gaps in bolt rings (not staggered)	Stagger ring gaps
	Carbon or dirt in carrier key or on outside of gas tube	Clean
BOLT FAILS TO LOCK AFTER LAST ROUND.	Dirty or corroded bolt catch	Clean
	Faulty magazine	Replace
SELECTOR LEVER BINDS	Needs Oil	Lubricate

■STRIPPING

A. Magazine

1) 30 rounds

— With the cleaning rod pry up and push out to release the magazine base catch (Fig. 12).
— Remove the base
— Jiggle the spring and the follower to remove

2) 20 rounds

— With the cleaning rod, push in to release the magazine base catch and slide out (Fig. 13)
— Remove the base
— Jiggle the spring and the follower to remove.

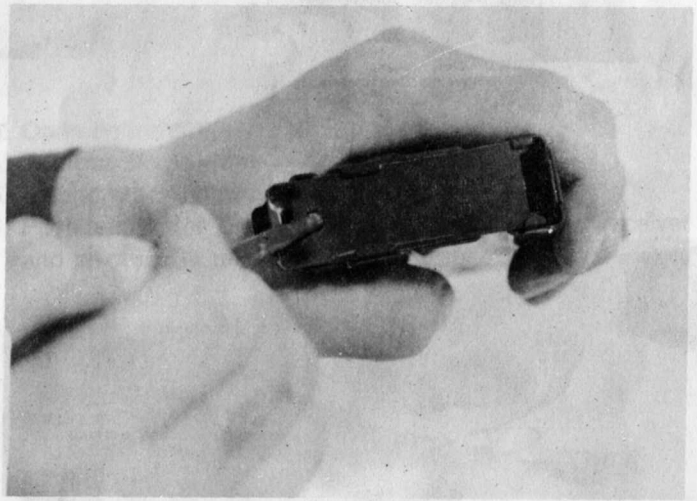
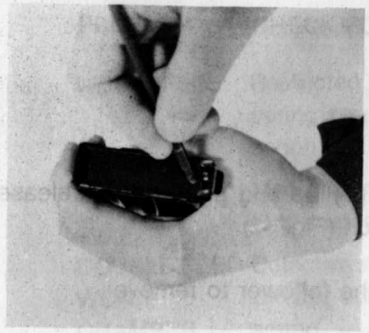
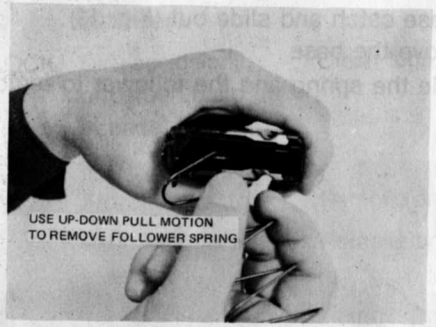


Fig. 12





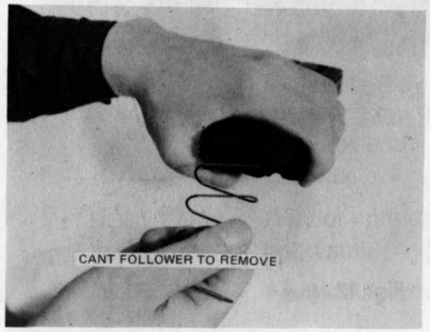
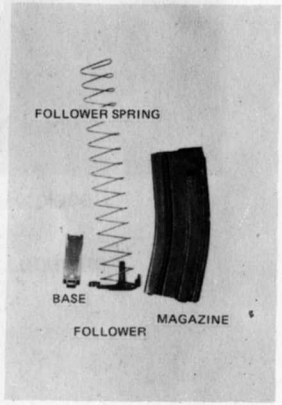


Fig. 13



B. Rifle

1. Place selector lever on SAFE
2. Remove magazine by pressing magazine release button (Fig. 14)

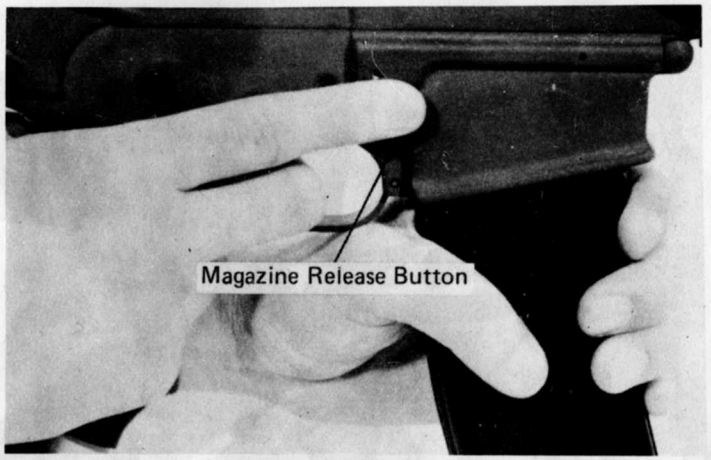


Fig. 14

3. Open bolt and eyeball chamber.
4. Remove sling
5. Extend stock halfway or fully.
6. Push supporter of recoil spring assembly into receiver and pivot upper receiver from lower receiver (Fig. 15)

Fig. 15

7. Remove recoil spring assembly
8. Pull charging handle all the way back and remove it. (Fig. 16)
9. Remove bolt carrier and bolt.
10. Push receiver pivot pin (Fig. 17)

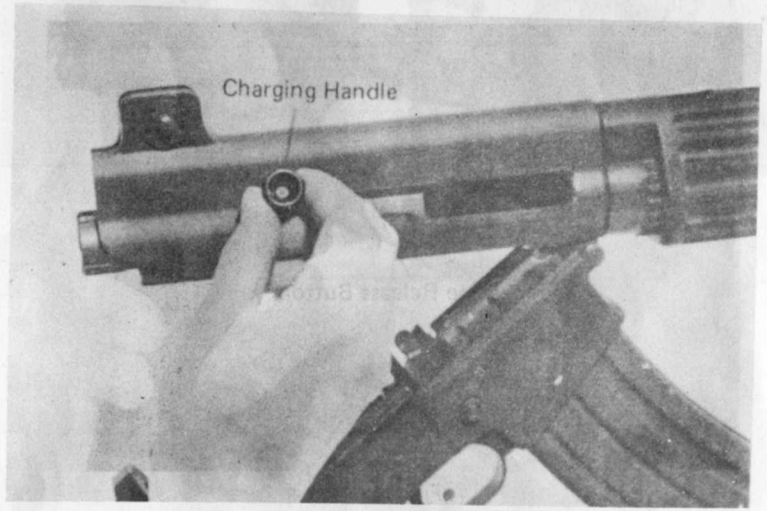


Fig. 16

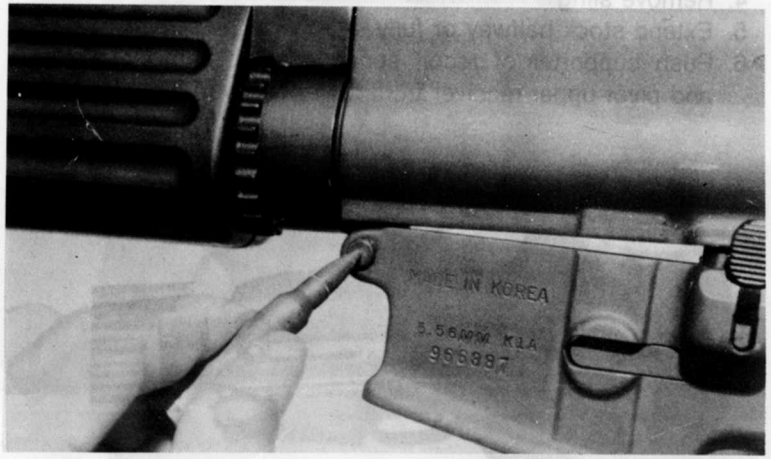


Fig. 17

11. Separate upper and lower receivers
12. Remove stock
13. Remove handguards
14. Remove firing pin retaining pin (Fig. 18)
15. Put bolt assembly in lock position (Fig. 19)

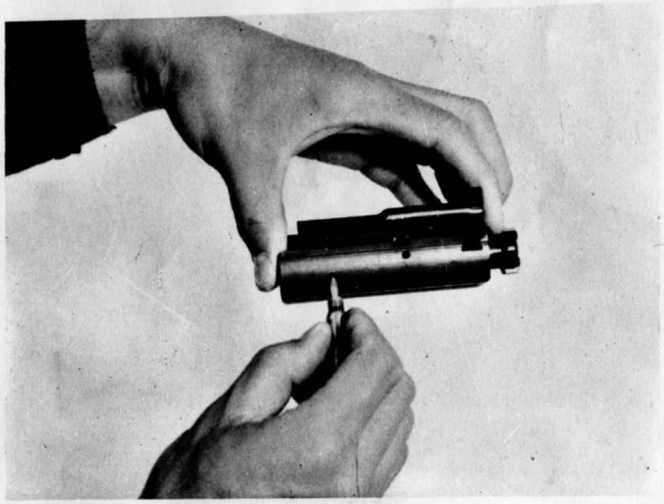


Fig. 18

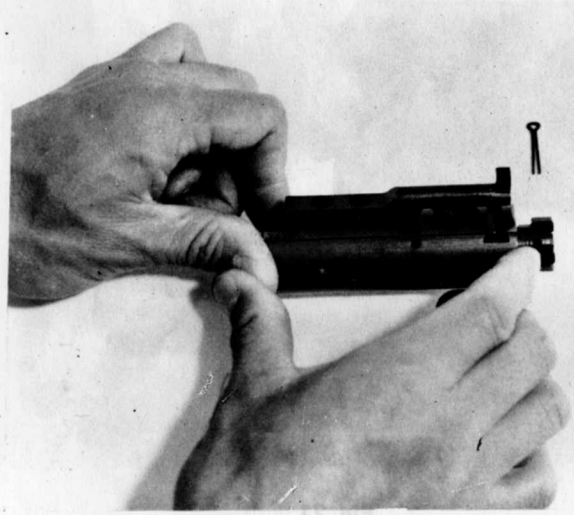


Fig. 19

16. Remove firing pin through rear of bolt carrier. (Fig. 20)
17. Remove bolt cam pin (Fig. 21)

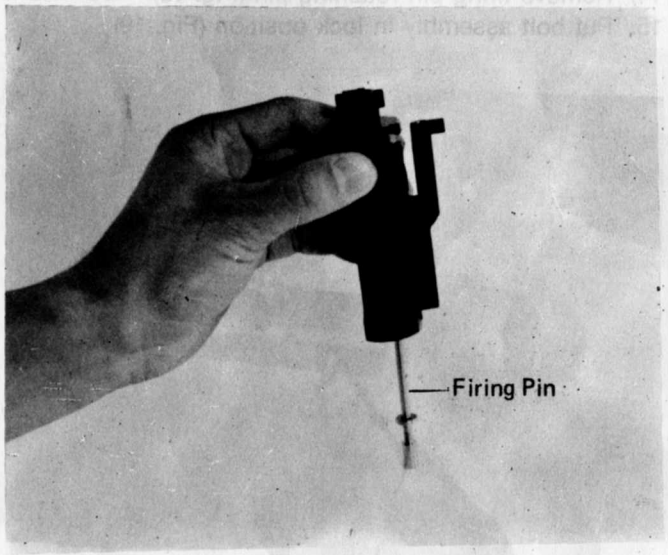


Fig. 20

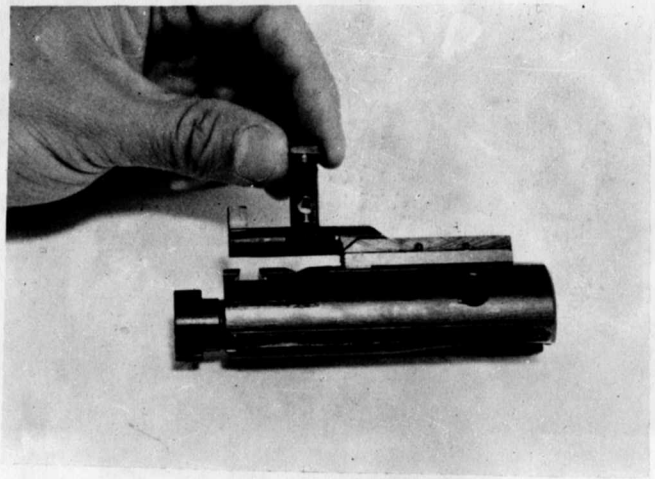


Fig. 21

18. Remove bolt assembly from carrier.
19. Remove extractor pin (Fig. 22)
20. Remove extractor (Fig. 23)
    Note: The extractor spring should not be removal.

Fig. 22

Fig. 23

■ REASSEMBLY

All parts are reassembled in the reverse order to the stripping procedure.

■ CLEANING AND MAINTENANCE

It must be emphasized that all semi-auto rifles require constant cleaning and maintenance and that most of stoppages mentioned elsewhere are the result of the shooter's negligence or lack of knowledge of his rifle. All rifles whether semi-auto or repeating rifles, should be cleaned at the end of day firing and special care must be taken after firing with blank cartridge.

A. Maintenance of the rifle

The rifle, 5.56mm AR110C only needs to be field-stripped for this maintenance. Maintenance procedure is as follows—

1) Use the barrel cleaning brush, oiled with the special rifle bore oil provided, and pass through the barrel several times.
2) Follow this by pulling through with dry rags.
3) Clean the chamber with the cleaning brush provided for this purpose.
4) Clean the bolt and bolt carrier.
5) Clean firing pin and firing pin hole.
6) Clean underneath the extractor claw, without stripping it.
7) Very slightly lubricate the moving parts of the mechanism.

B. Lubrication

—When reassembling, lubricate where required.
—Apply oil to constant friction like bolt carrier, bolt, trigg mechanism, barrel extension.

Parts to be or not to be lubricated:

- Lubricated: bolt
  bolt carrier
  barrel extension
  trigger mechanism
  recoil spring
  ejector and spring

- Unlubricated: barrel
  gas pipe
  bolt carrier key
  outside of the rifle

■ ILLUSTRATED PARTS LIST

A. Upper Receiver & Recoil Spring Group

ITEM	PART NAME	PART NO.
1	Recoil Spring Ass'y	700192
2	Hand Guard Ass'y (L.H)	700199
3	Hand Guard Ass'y (R.H)	700198
4	Screw Hand Guard	110954
5	Washer Hand Guard	200033
6	Detent, Front Sight	110038
7	Spring, Front Sight, Detent	110041
8	Post, Front Sight	110039
9	Charging Handle	700443
10	Spring Pin, Windage Drum	110120
11	Drum Windage	110036
12	Detent, Rear Sight	110043
13	Spring, Rear Sight Detent	110042
14	Screw, Rear Sight, Windage	110035
15	Rear Sight	111116
16	Spring, Rear Sight	110040
17	Upper Receiver	110980
18	Barrel and Front Sight Ass'y	701061

B. Bolt Carrier Group

ITEM	PART NAME	PART NO.
1	Retaining Pin, Firing Pin	110088
2	Pin, Firing	111125
3	Pin, Bolt Cam	110917
4	Pin, Extractor	110010
5	Extractor	110009
6	Supporter, Extractor Spring	110109

7	Spring, Extractor	110110
8	Ring Bolt	110007
9	Bolt	111126
10	Bolt Carrier and Key	701046

C.Lower Receiver Group

ITEM	PART NAME	PART NO.
1	Wire Stock	701060
2	Screw, Pistol Grip	110118
3	Washer, Pistol Grip	110111
4	Grip, Pistol	110933
5	Spring, Selector Lever Detent	110012
6	Detent, Selector Lever	110045
7	Spring Pin	110949
8	Pin, Hammer	111119
9	Hammer Ass'y	701040
10	Spring, Hammer	111127
11	Lever, Selector	111151
12	Trigger	111115
13	Disconnector	111118
14	Spring, Disconnector	110052
15	Spring, Trigger	110027
16	Ejector	110924
17	Spring, Ejector	110030
18	Bushing, Ejector	110925
19	Bolt Catch	110923
20	Plunger, Bolt Catch	110067
21	Spring, Plunger Bolt Catch	110066
22	Spring Pin	110120
23	Button, Magazine Release	110928
24	Spring, Magazine Catch	110044
25	Shaft & Magazine Catch	700189
26	Swivel Assembly	700190
27	Buffer	110956
28	Spring, Buffer	110945
29	Spring, Pin	110120
30	Detent, Trigger Guard	110003
31	Spring, Trigger Guard Detent	110005

32	Guard, Trigger	110950
33	Spring, Detent, Pivot Pin	110030
34	Detent, Pivot Pin	110033
35	Pin, Receiver Pivot	110073
36	Bushing, Butt Catch	110931
37	Spring, Butt Catch	110932
38	Butt Catch	110930
39	Lower Receiver	

D. Magazine Group (30 rounds)

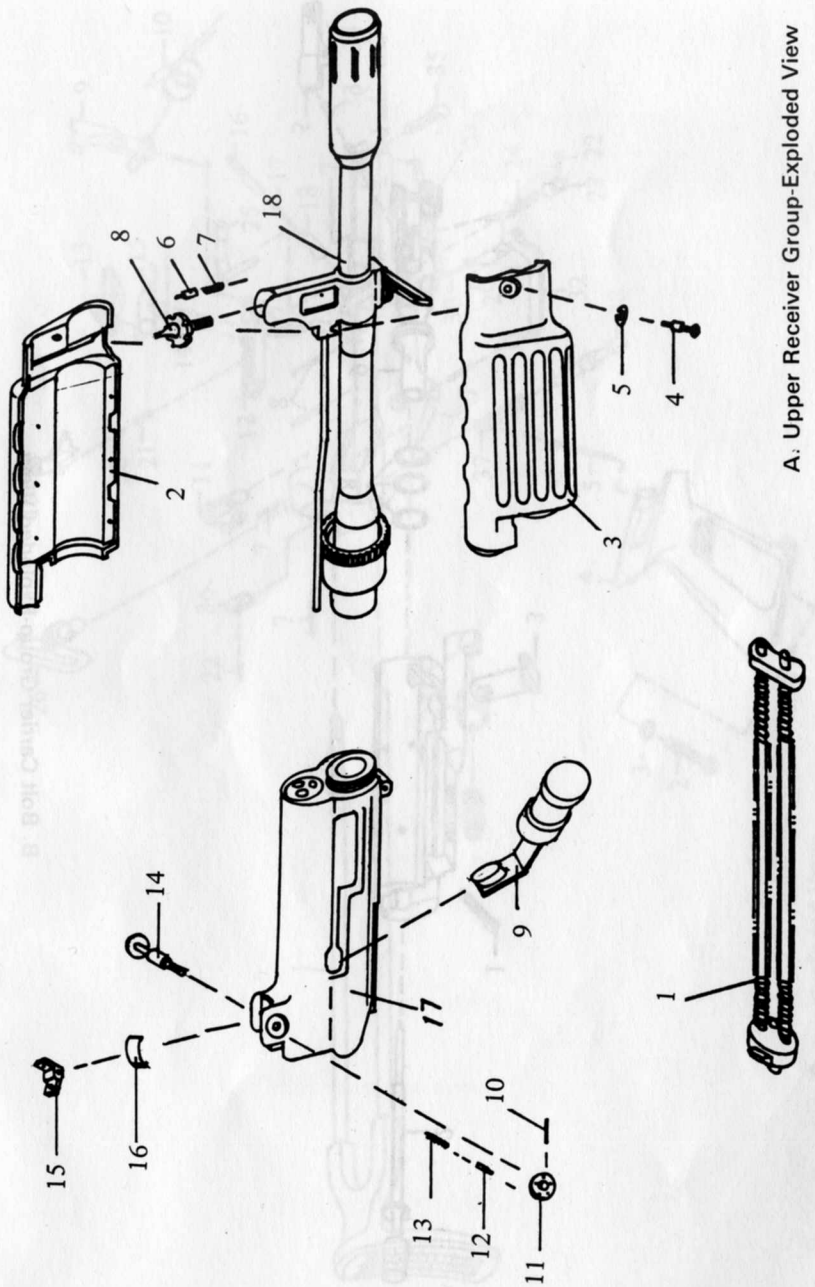
ITEM	PART NAME	PART NO.
1	Magazine Ass'y	700453
2	Box, Magazine	
3	Follower, Magazine	
4	Spring, Magazine	
5	Bottom Plate, Magazine	

E. Cleaning Kit Group

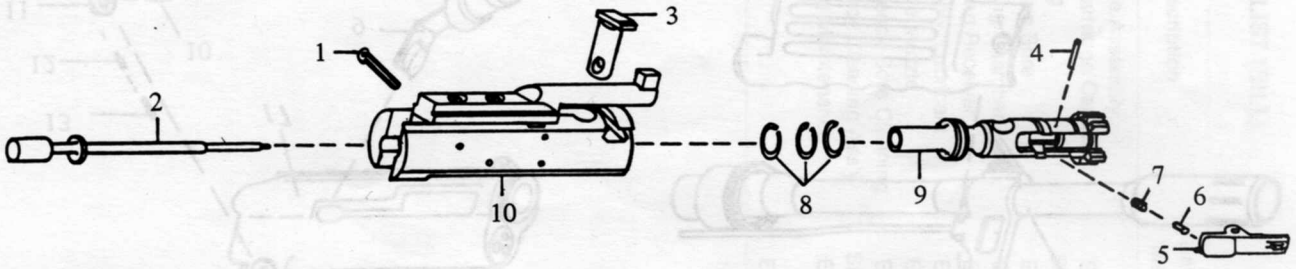
ITEM	PART NAME	PART NO.
1	Case Assembly, Cleaning	700200
2	Oil Cap	
3	Oil Cap Packing	
4	Cleaning Kit Cap	
5	Cleaning Kit Spring	
6	Cleaning Box	

■ BASIC ISSUE ITEMS LIST (BILL)

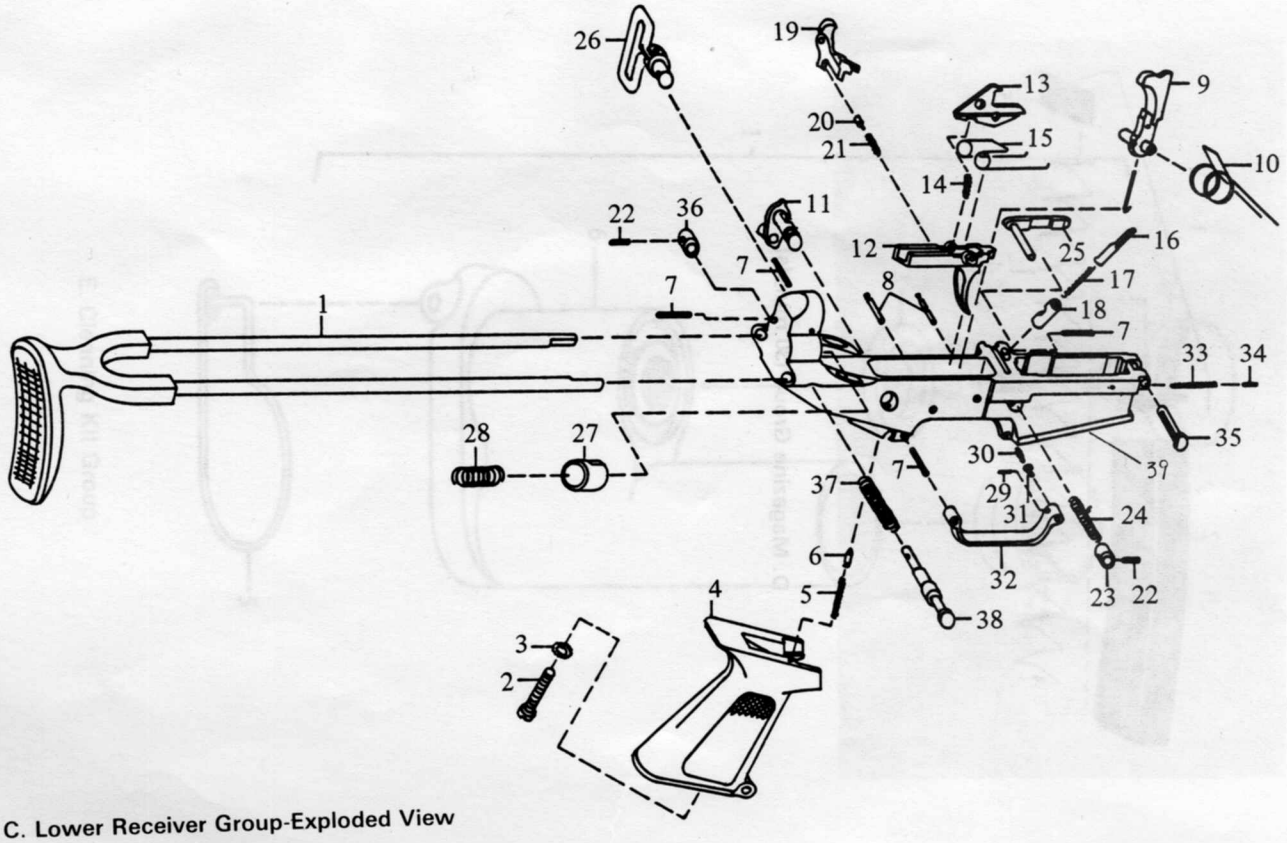
Stock No.	Description	Unit of Meas.	Q'ty Inc. in Unit	Q'ty of supply with Equip
	Box, Magazine Assembly			
700453	30 Rounds Cartridge Capacity	EA	1	1
110986	Rod, Cleaning	SET	1	1
110137	Brush, Cleaning Bore	EA	1	1
110138	Brush, Cleaning Chamber	EA	1	1
110139	Brush, Cleaning Receiver	EA	1	1
110141	Bottle Assembly, Lubricant	EA	1	1
110142	Cap, Protective Muzzle	EA	1	1
110982	Brush, Emergency Bore Cleaning	EA	1	1
110983	Rod, Emergency Cleaning Ass'y	SET	1	1
110987	Case, Carrying Maintenance Equipment	EA	1	1
110991	Sling	EA	1	1



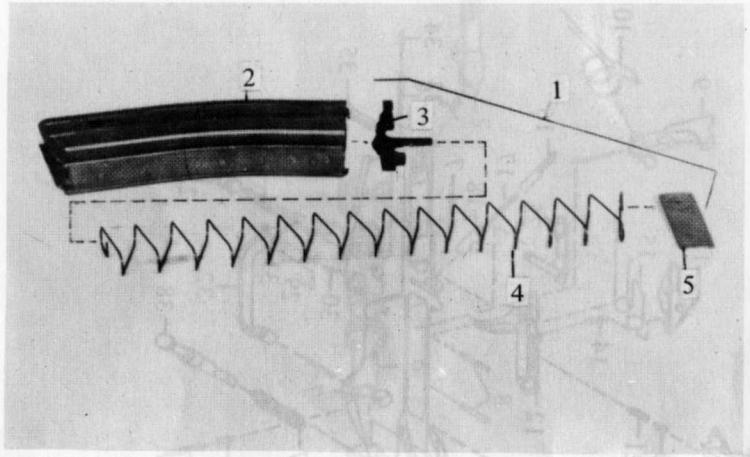
A. Upper Receiver Group-Exploded View



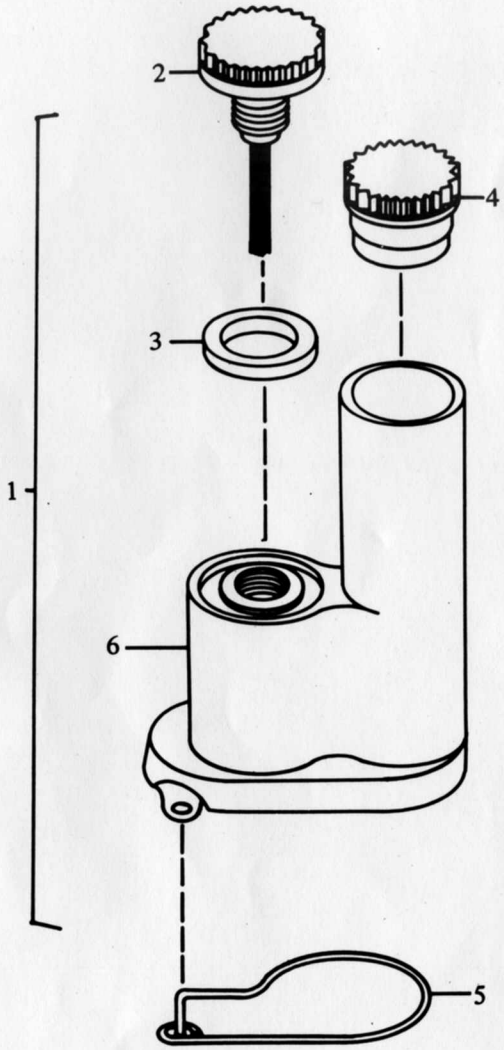
B. Bolt Carrier Group-Exploded View



C. Lower Receiver Group-Exploded View



D. Magazine Group (30 rounds)



E. Cleaning Kit Group

DAEWOO

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